Fifth Disease

parvovirus B19 infections

Disease Fact Sheet

What is fifth disease?

Fifth disease is a viral infection caused by human parvovirus B19. In most instances, fifth disease is a relatively mild, self-limited rash illness that is more common in children than in adults. Recent studies indicate that infection with parvovirus B19, in rare instances, can lead to serious complications.

Who gets fifth disease?

Anyone can become infected with the virus that causes fifth disease, but the disease is most often recognized in elementary-school-aged children. Occurrence of parvovirus B19 infection is worldwide. It can occur throughout the year in all age groups, either as sporadic cases or as clusters of cases of fifth disease.

What are the symptoms of fifth disease?

The first symptoms of fifth disease are usually fever, runny nose, and headache. After several days, you may get a red rash on your face. This rash is the most recognized feature of fifth disease, and is more common in children than in adults. Some people may get a second rash a few days later on their chest, back, buttocks, or arms and legs. The rash may be itchy, especially on the soles of the feet. The rash can fade and reappear and usually goes away in 7 to 10 days, but can last several weeks.

People with fifth disease can also develop pain and swelling in their joints. This is more common in adults, especially women. Approximately 20 percent of infected children and adults have no symptoms. Some adults do not develop rash but may complain of painful and swollen joints.

How soon do symptoms appear?

Symptoms usually appear 4 to 14 days after exposure to an infected person, but can take as long as 21 days to appear.

How is the virus spread?

The virus is spread by contact with airborne droplets from an infected person's nose and throat.

How long is a person able to spread the virus?

People with fifth disease usually spread the virus during the week before the appearance of their rash. By the time their rash is evident, the person is no longer spreading the virus.

How is fifth disease diagnosed?

In most cases, fifth disease is diagnosed based on the appearance of the characteristic rash. In addition, a specific blood test can confirm the diagnosis.

Does past infection with the virus make a person immune?

It is thought that people previously infected acquire long-term or lifelong immunity. Studies have shown that approximately 50 percent of adults may be immune to parvovirus B19.

What are the complications associated with fifth disease?

Fifth disease is usually mild for children and adults who are otherwise healthy. For some people, fifth disease causes serious health complications. People with weakened immune systems caused by leukemia, cancer, organ transplants or HIV infection are at risk for serious complications from fifth disease. It can cause chronic anemia that requires medical treatment.

What risk does this virus pose to pregnancy?
This disease is usually not a problem for pregnant women or their babies. About 50 percent of pregnant women are immune to parvovirus B19. These women and their babies are usually protected from getting the virus and fifth disease.

Pregnant women who are not immune usually do not have serious complications after they are exposed to others with fifth disease. The illness is usually mild, but the woman may have a miscarriage. This is not common and happens in less than 5 percent of all pregnant women with parvovirus B19 infection.

Their babies usually do not have any problems; however, sometimes a baby will develop severe anemia.

What should a pregnant woman do if she thinks she has been exposed to this virus?
She should contact her doctor.

What is the treatment for fifth disease?
Children and adults who are otherwise healthy usually recover completely. Treatment usually involves relieving symptoms, such as fever, itching, joint pain and swelling. Fifth disease is usually mild and goes away on its own.

Is there a vaccine against the virus that causes fifth disease?
There is currently no vaccine to prevent infection with this virus.

What can be done to prevent the spread of this virus?
Good hygiene, especially good handwashing, is the best way to prevent its spread.